

Appl. No. 10/079,102  
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IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE

Appl. No.: 10/079,102  
Applicant(s): Kenneth J. Wayne  
Filed: February 19, 2002  
TC/A.U.: 3600/3632  
Examiner: Alfred Wujciak  
Atty. Docket:10011474-1

Title: A LOW COST OPTOMECHANICAL

MOUNT FOR PRECISELY STEERING/POSITIONING

A LIGHT BEAM

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On: 22 July 2006

By:   
William S. Francos

## APPEAL BRIEF

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In connection with the Notice of Appeal filed on December 14, 2005, and in response to the Notice of Non-Compliant Appeal Brief dated June 22, 2006 Applicants provide the following Appeal Brief in the above captioned application.

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## TABLE OF CASES

1. *In re Spada* 15 USPQ2d 1655 (CAFC 1990).
2. *Kloster-Speedsteel AB v. Crucible, Inc.* 230 USPQ 81 (CAFC 1984).
3. *Scanner Technologies Corp. v. ICOS Vision Systems Corp.* 70 USPQ2d 1900 (CAFC 2004).
4. *KCJ Corp. v. Kinetic Concepts, Inc.* 55 USPQ2d 1835 (CAFC 2000).
5. *Sensonics Inc. v Aerosonics Corp.,* 38 USPQ 2d 1551-1554 (CAFC 1996).
6. *W.L. Gore & Associates, Inc. v. Garlock, Inc.,* 220 USPQ 303 (CAFC 1983).
7. *Graham v. John Deere Co.,* 383 US 1, 148 USPQ 459 (CCPA 1966).
8. *In re Bergel* 130 USPQ 206 (CCPA 1961).
9. *In re Sponnoble,* 160 USPQ 237 (CCPA 1969).
10. *Pro-Mold and Tool Co. v. Great Lakes Plastics, Inc.* 37 USPQ2d 1626 (CAFC 1996).
11. *Cardiac Pacemakers Inc. v. St. Jude Medical Inc.* 72 USPQ 2d 1222 (CAFC 2004).

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#### **1. Real Party in Interest**

The real party in interest as assignee of the entire right and title to the invention described in the present application is Agilent Technologies, Inc., having a principle place of business at 395 Page Mill Rd. Palo Alto, CA 94306.

#### **2. Related Appeals and Interferences**

There are no known related appeals or interferences at this time.

#### **3. Status of the Claims**

- i. Claims 1-5, 7-14, 19 and 20 are allowed.
- ii. Claim 18 is objected to as being as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including of the limitations of the base claim and any intervening claims.
- iii. Claims 6 and 16 are cancelled.
- iv. Claims 15 and 17 have been finally rejected.

The claims on appeal are duplicated in Appendix I.

#### **4. Status of Amendments**

A Final Office Action on the merits was mailed on September 14, 2005. In response thereto, a Reply traversing the substance of the final rejection was filed by facsimile on November 14, 2005. An Advisory Action was mailed November 29, 2005.

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**5. Summary of the Claimed Subject Matter**

In an embodiment described in the filed application, an optomechanical system 201 includes a sphere adapted 105 for mounting an optical element in the sphere 105. The sphere 105 has an opening 112 shaped to receive an alignment tool and made of a magnetically attractive material. The system also includes a housing 203 adapted to receive the magnets 401 attached to the housing 203 and magnetically attracted to the sphere 105, the magnets 401 so constructed and arranged in the housing 203 such that the sphere 105 has freedom for prescribed movement when required by overcoming the magnetic attraction between the sphere 105 and the magnets 401, but is otherwise held stationary by the magnetic attraction. In another embodiment, a cover 405 is attached to the housing 203. (Kindly refer to paragraphs [0018] through [0033] for support for the above descriptions.)

**6. Grounds of Rejection to be Reviewed on Appeal**

The issues in the present matter are whether:

1. Claims 15 and 17 are properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Chuang (U.S. Patent 5,800,311).

**7. Argument**

I. Rejection of claims 15 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Chuang

- a. The applied art does not disclose nor suggest the use of a plurality of magnets

Analysis of obviousness under 35 U.S.C. §103 requires

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determination of the scope and content of the prior art, the differences between the prior art, and the claims at issue, and the level of ordinary skill in the pertinent art.

*W.L. Gore & Associates, Inc. v. Garlock, Inc.* 220 USPQ 303, 311 (1983) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (CAFC 1966)). There must be content present in the prior art teachings to suggest to one skilled in the art that the claimed invention would have been obvious. *W.L. Gore & Associates* at 311 (citing *In re Bergel* 130 USPQ 206, 208 (CCPA 1961); and *In re Sponnoble* 160 USPQ 237, 244 (CCPA 1969)).

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is a reason, suggestion or motivation do so. The reason, suggestion or motivation may come from references themselves; from knowledge of those skilled in art that certain references or disclosures in references are known to be of interest in the particular field; or from nature of the problem to be solved to do so found in the references themselves or in the knowledge generally available to one of ordinary skill in the art.

*Pro-Mold and Tool Co. v. Great Lakes Plastics Inc.* 37 USPQ2d 1626 (CAFC 1996). Prior knowledge in the field must be supported by tangible teachings in reference materials. *Cardiac Pacemakers Inc. v. St. Jude Medical Inc.* 72 USPQ 2d 1333, 1336 (CAFC 2004).

Hindsight is not an appropriate motivation for combining references and the requisite knowledge available to one of ordinary skill in the art. Relying upon hindsight knowledge of applicants' disclosure when the prior art does not teach nor suggest such knowledge results

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in the impermissible use of the invention as a template for its own reconstruction. *Sensonics Inc. v Aerosonics Corp.*, 38 USPQ 2d 1551-1554 (CAFC 1996), citing *W.L. Gore & Associates, Inc. v. Garlock, Inc.* 220 USPQ 303.

Claim 15 is drawn to an optomechanical system including:

*...a plurality of magnets attached to the housing and magnetically attracted to the sphere, the magnets so constructed and arranged in the housing such that the sphere has freedom for prescribed movement when required by overcoming the magnetic attraction between the sphere and the magnets, but is otherwise held stationary by the magnetic attraction."*

Applicant respectfully submits that *Chuang* lacks at least the disclosure of at least the noted feature of claim 15. *Chuang* does disclose a magnet ring 34 that cooperates with coils 53 to provide current to lighting elements 43 to indicate rotation of the sphere. As the Office Action notes, the reference does not disclose a plurality of magnets. Moreover, there is no teaching or suggestion in *Chuang* to incorporate a plurality of magnets and especially the disclosure of a plurality of magnets constructed and arranged in a housing to maintain the sphere stationary excepting the rotation as specifically set forth in claim 15.

Furthermore, the Office Action asserts that the addition of multiple magnets to the device of *Chuang* would have been obvious to one skilled in the art in order to provide additional control of the sphere. Applicant disagrees.

The single magnetic ring disclosed in *Chuang* is used to provide a magnetically induced current to lighting

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elements. The reference does not teach or suggest the use of more than one magnet for this purpose, and does not disclose the use of the magnet for any other purpose, especially the maintaining of the sphere as featured in claim 15. Notably, at column 5, lines 55-61, *Chuang* discloses the selection of LEDs as the lighting elements because of the relatively small amount of electricity these devices require and thus magnet 34 can support the electrical needs of the LEDs. A reasonable inference from this portion of *Chuang* would be that only one magnet is needed and thus only one magnet is disclosed for this purpose.

Based upon the teachings of *Chuang*, the use of multiple magnets is unobvious; and the use of multiple magnets constructed and arranged as set forth in claim 15 based on *Chuang* can only be made with impermissible hindsight reconstruction using Applicant's invention as a template. Accordingly, the rejection set forth in the Office Action based on *Chuang* is improper and should be withdrawn.

Applicant respectfully further submits that the Office Action provides no basis for the plurality of magnets. As noted above, prior knowledge in the field must be supported by tangible teachings of reference materials. The Office Action provides no such reference materials showing the plurality of magnets in an optical system as specifically claimed.

For at least the reasons set forth above, Applicant submits that the rejection based on *Chuang* is improper and should be withdrawn.

b. *Chuang* is non-analogous art

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In addition to the foregoing, Applicant submits that the reference to *Chuang* is not pertinent art and thus cannot serve to establish a rejection under 35 U.S.C. § 103(a). The determination that a reference is from a non-analogous art is two-fold. First, the reference must be within the field of the inventor's endeavor. If it is not, the reference must be reasonably pertinent to the particular problem with which the inventor was involved. *In re Dillon*

16 USPQ2d 1897 (CAFC 1990).

*Chuang* relates to a wrist exerciser, which is outside the realm of the optomechanical system of claims 15 and 17. These technical fields are disparate and thus one skilled in the art of optomechanical systems would not look to and consider wrist exercises within his or her field of endeavor when addressing a problem to be solved.

Furthermore, claim 15 addresses the securing of the sphere 105 with a plurality of magnets. Contrastingly, *Chuang* incorporates a magnetic ring 34 in cooperation with coils 53 to provide current to lighting elements indicating the movement of a rotator during exercise. As noted above, *Chuang* lacks the disclosure of securing a sphere with a plurality of magnets as recited in claim 15. Therefore, *Chuang* is not reasonably pertinent to the specific problem that the invention of claim 15 addresses. (See column 4, lines 16-54 of the reference to *Chuang*.)

For at least the reasons set forth above, it is respectfully submitted that the rejection of claim 15 based on *Chuang* is improper. Additionally, the rejection of claim 17, which depends from claim 15, is similarly improper. It is respectfully requested that the rejection

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of claims 15 and 17 be withdrawn and that claims 15 and 17 be allowed.

Conclusion

The status of claims 6 and 16 has been included in the present filing. It is believed that the Appeal Brief is now compliant with 37 C.F.R. § 41.37.

In view of the foregoing, Applicant respectfully requests that the objections and rejections of record be withdrawn, and all pending claims be allowed. If any remaining issues can be resolved through a personal or telephonic interview, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted on behalf of:  
Agilent Technologies, Inc.



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by: William S. Francos (Reg. No. 38,456)  
Date: July 22, 2006

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APPENDIX  
Claims on Appeal

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15. An optomechanical system comprising:

a sphere adapted for mounting an optical element in the sphere, the sphere having an opening shaped to receive an alignment tool and made of a magnetically attractive material;

a housing adapted to receive the sphere; and

a plurality of magnets attached to the housing and magnetically attracted to the sphere, the magnets so constructed and arranged in the housing such that the sphere has freedom for prescribed movement when required by overcoming the magnetic attraction between the sphere and the magnets, but is otherwise held stationary by the magnetic attraction.

17. The system of claim 15, further comprising a cover attached to the housing.

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APPENDIX  
**Evidence**  
**(None)**

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APPENDIX

Related Proceedings  
(None)